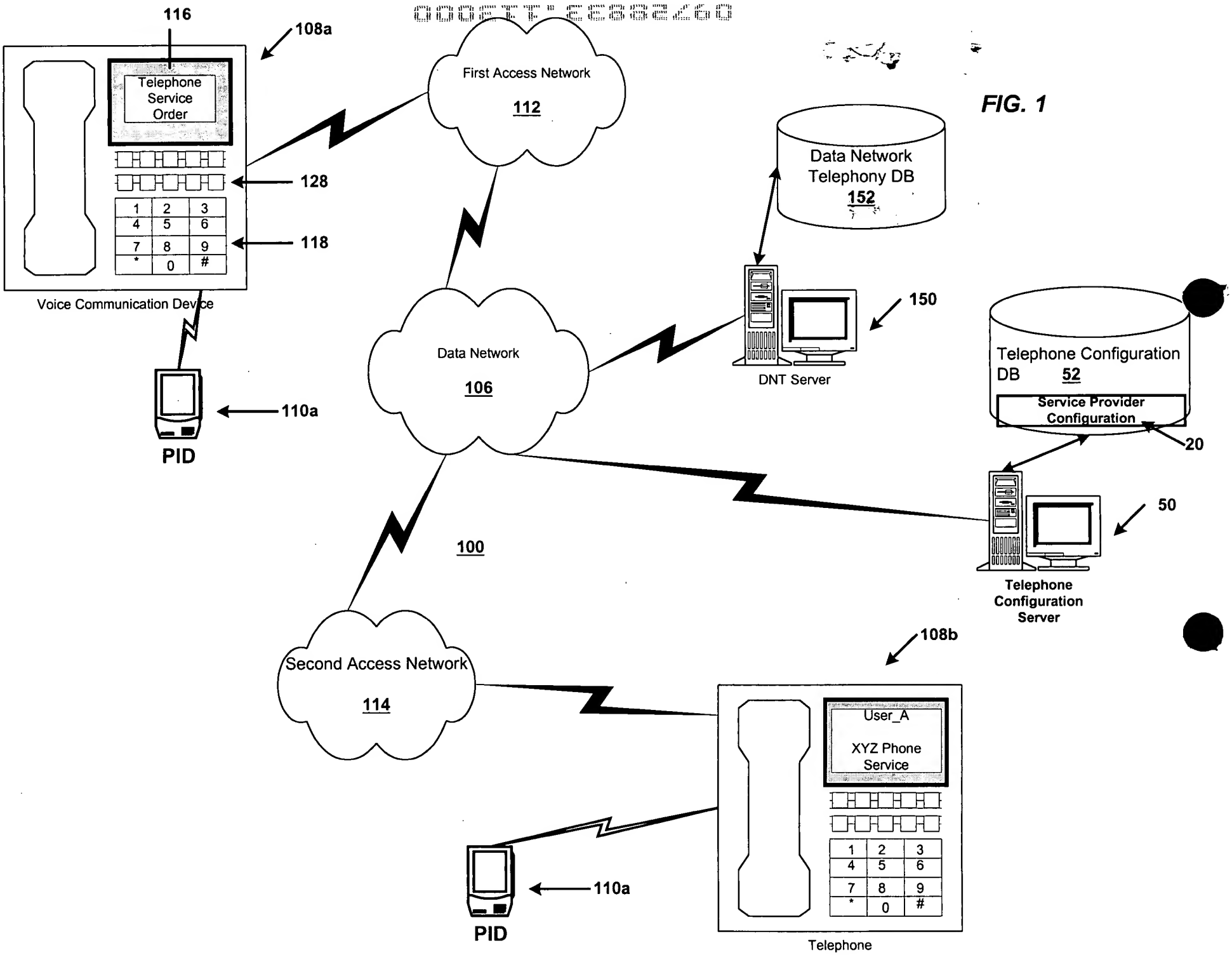

116
108a
Telephone Service Order
128
118
Voice Communication Device
PID
110a
First Access Network
112
Data Network
106
100
Second Access Network
114
Data Network Telephony DB
152
DNT Server
150
Telephone Configuration DB 52
Service Provider Configuration
20
Telephone Configuration Server
50
108b
User_A
XYZ Phone Service
Telephone
PID
110a

FIG. 1

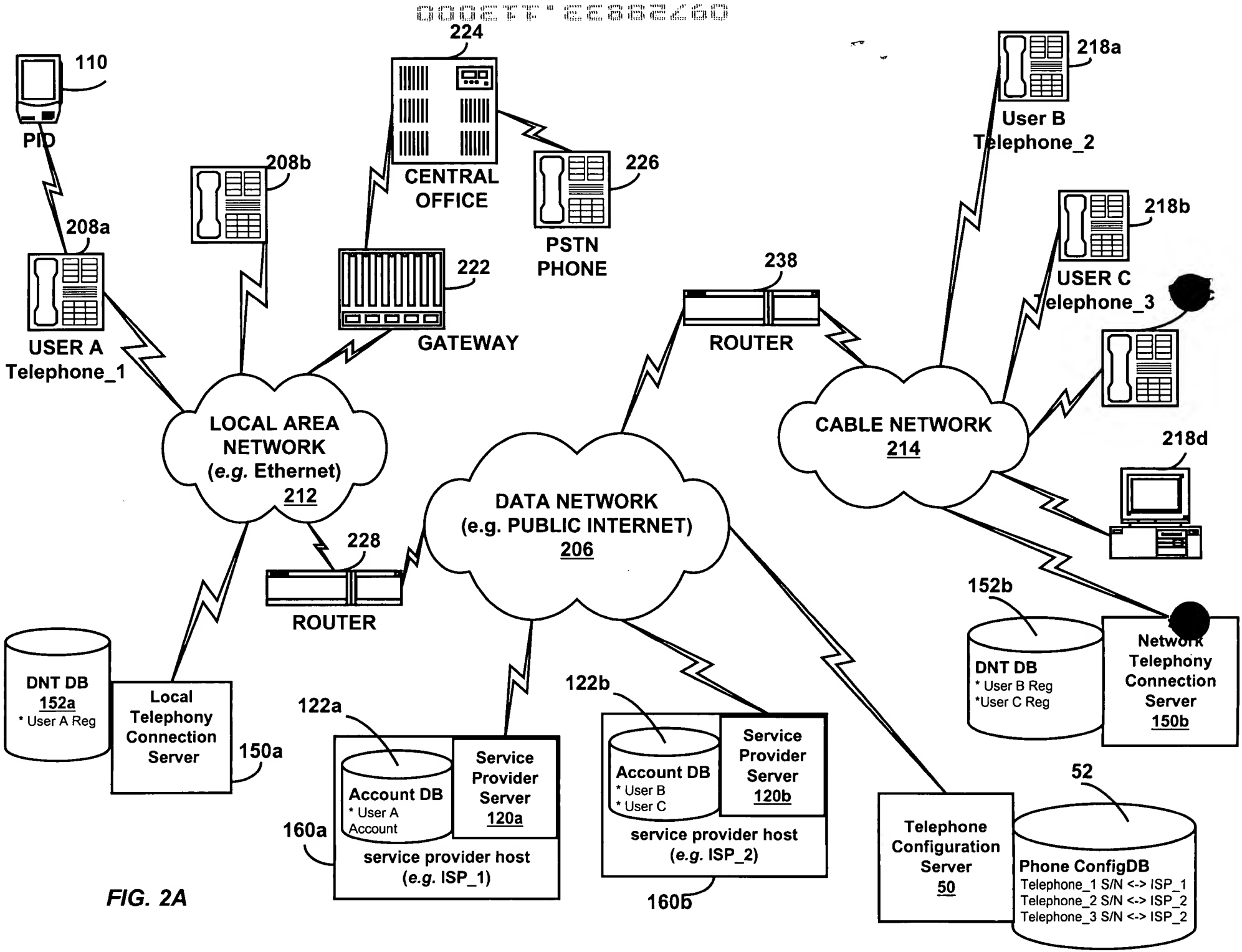

224
110
PID
CENTRAL OFFICE
226
PSTN PHONE
218a
User B Telephone_2
208b
208a
USER A Telephone_1
222
GATEWAY
238
ROUTER
218b
USER C Telephone_3
LOCAL AREA NETWORK (e.g. Ethernet) 212
DATA NETWORK (e.g. PUBLIC INTERNET) 206
CABLE NETWORK 214
218d
228
ROUTER
152b
DNT DB
* User B Reg
*User C Reg
Network Telephony Connection Server 150b
DNT DB 152a
* User A Reg
Local Telephony Connection Server
150a
122a
Account DB
* User A Account
Service Provider Server 120a
160a
service provider host (e.g. ISP_1)
122b
Account DB
* User B
* User C
Service Provider Server 120b
service provider host (e.g. ISP_2)
160b
52
Telephone Configuration Server 50
Phone ConfigDB
Telephone_1 S/N <-> ISP_1
Telephone_2 S/N <-> ISP_2
Telephone_3 S/N <-> ISP_2

FIG. 2A

DOCKET 2258260

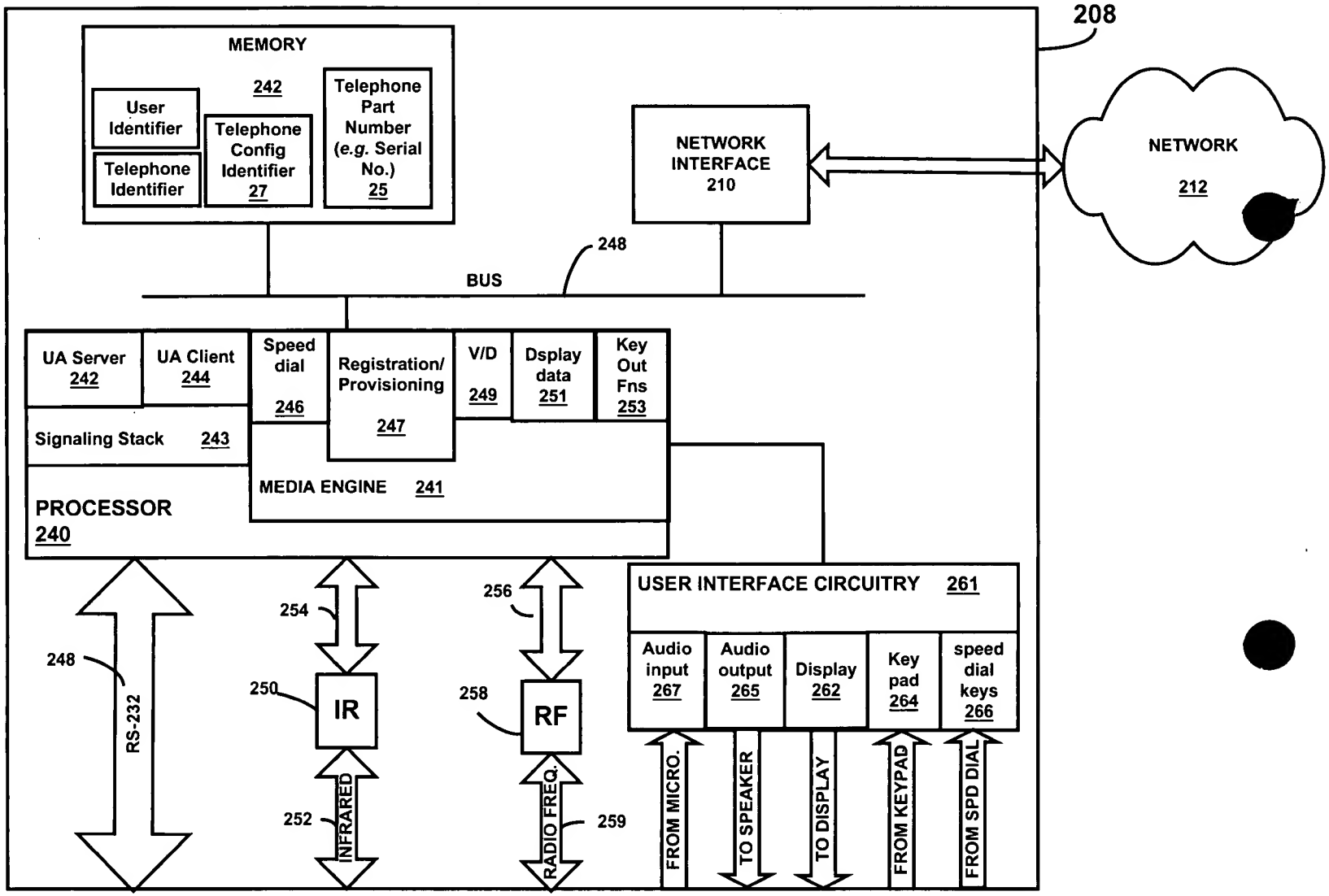
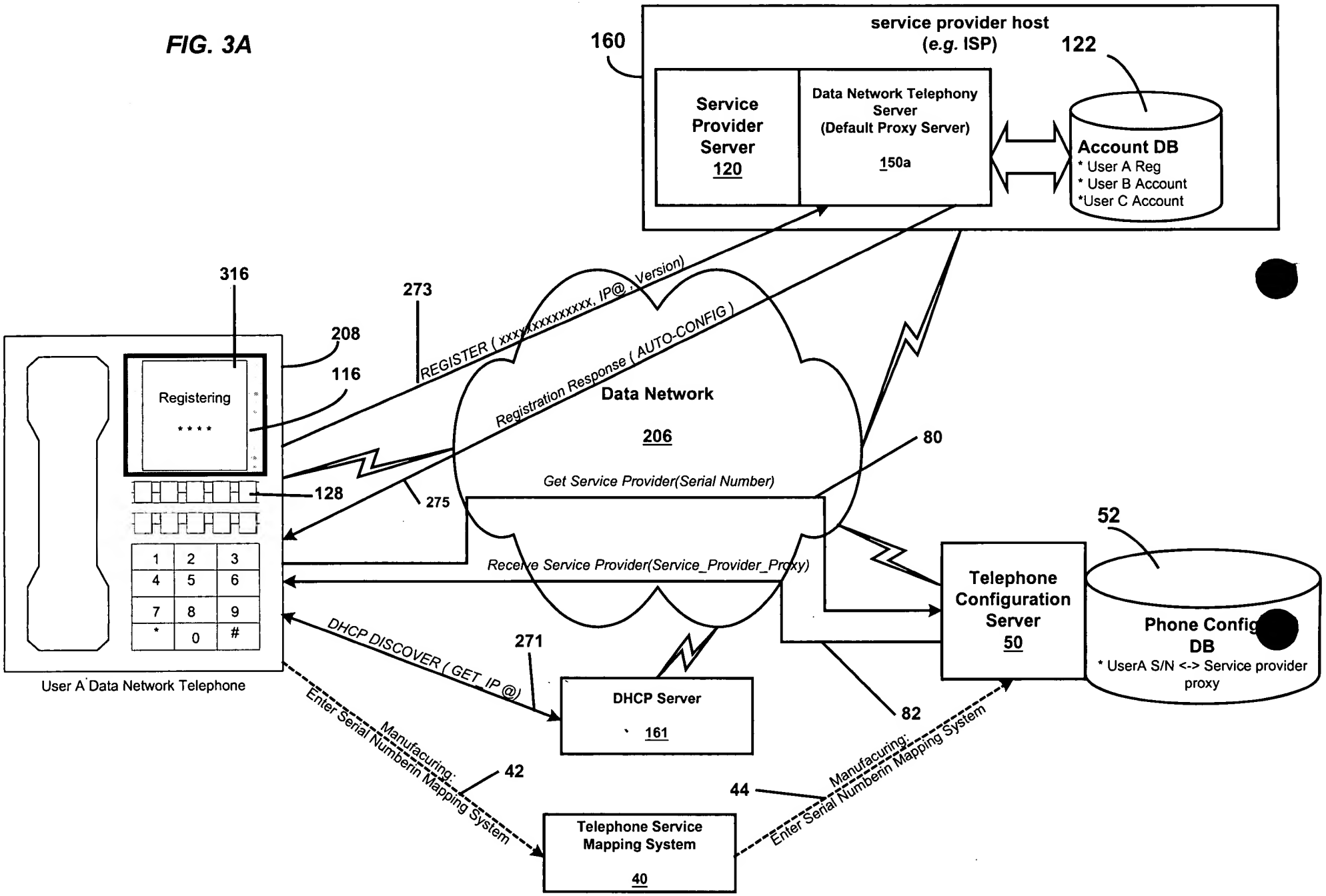


FIG. 2B

FIG. 3A


service provider host
(e.g. ISP)
160
122
Service Provider Server 120
Data Network Telephony Server (Default Proxy Server)
150a
Account DB
* User A Reg
* User B Account
*User C Account
316
273
208
116
REGISTER (xxxxxxxxxxxx, IP@ , Version)
Registration Response (AUTO-CONFIG)
Registering
****
Data Network
206
80
128
275
Get Service Provider(Serial Number)
52
Receive Service Provider(Service_Provider_Proxy)
Telephone Configuration Server 50
Phone Config DB
* UserA S/N <-> Service provider proxy
1 2 3
4 5 6
7 8 9
* 0 #
User A Data Network Telephone
DHCP DISCOVER (GET IP @)
271
DHCP Server
161
82
Manufacuring: Enter Serial Numberin Mapping System
42
44
Manufacuring: Enter Serial Numberin Mapping System
Telephone Service Mapping System
40

doc#: 20080260

FIG. 3B

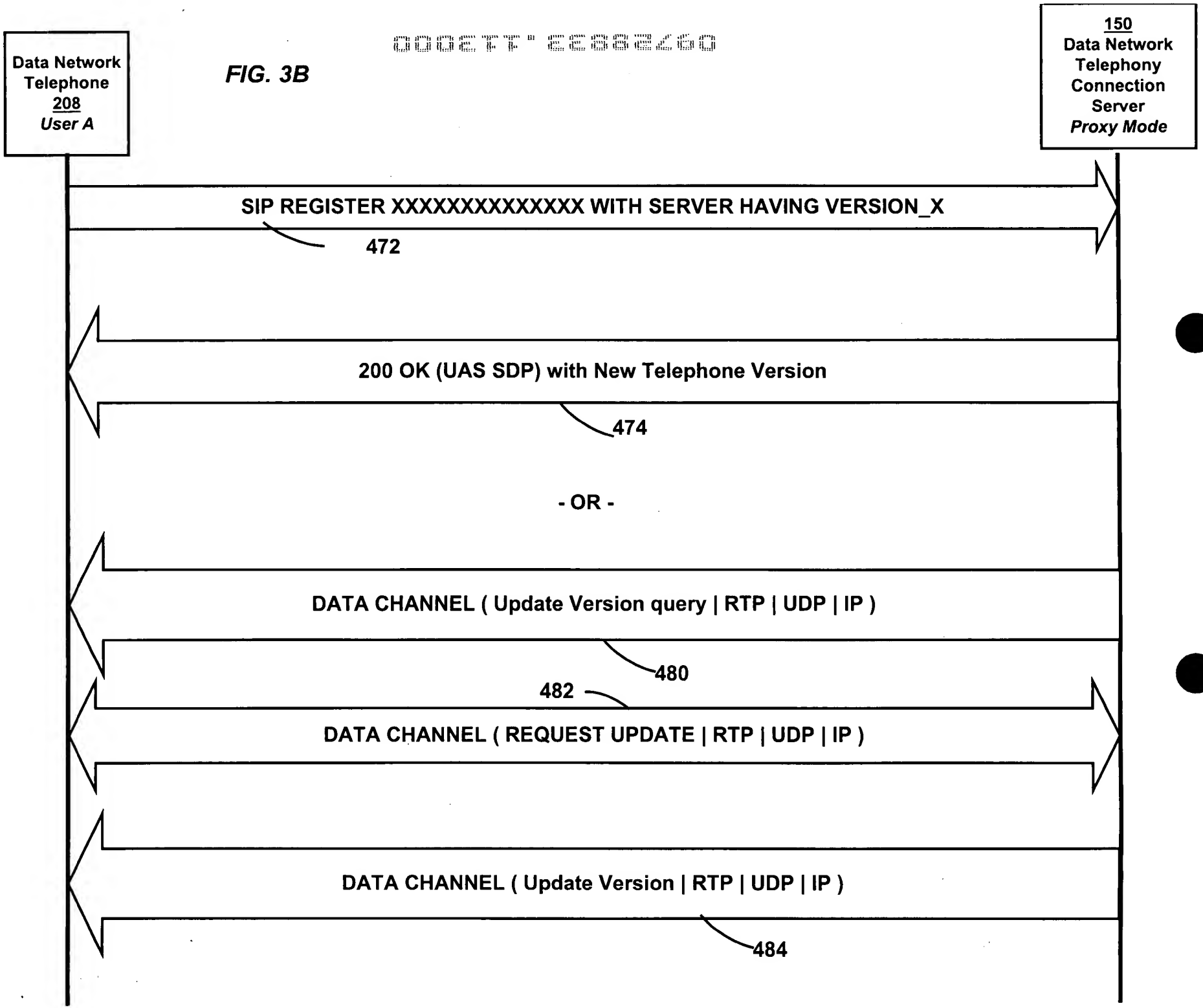


FIG. 3C

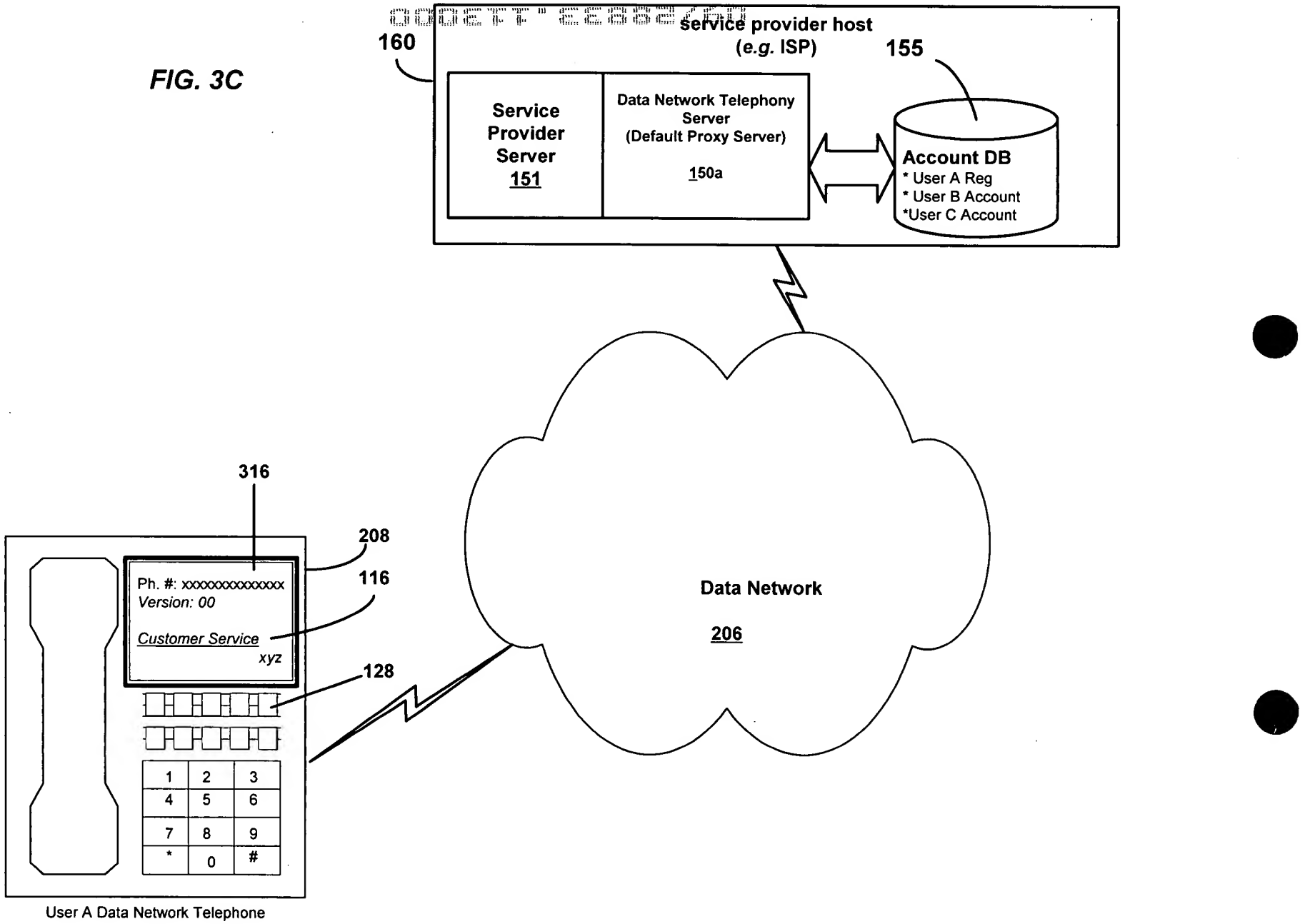
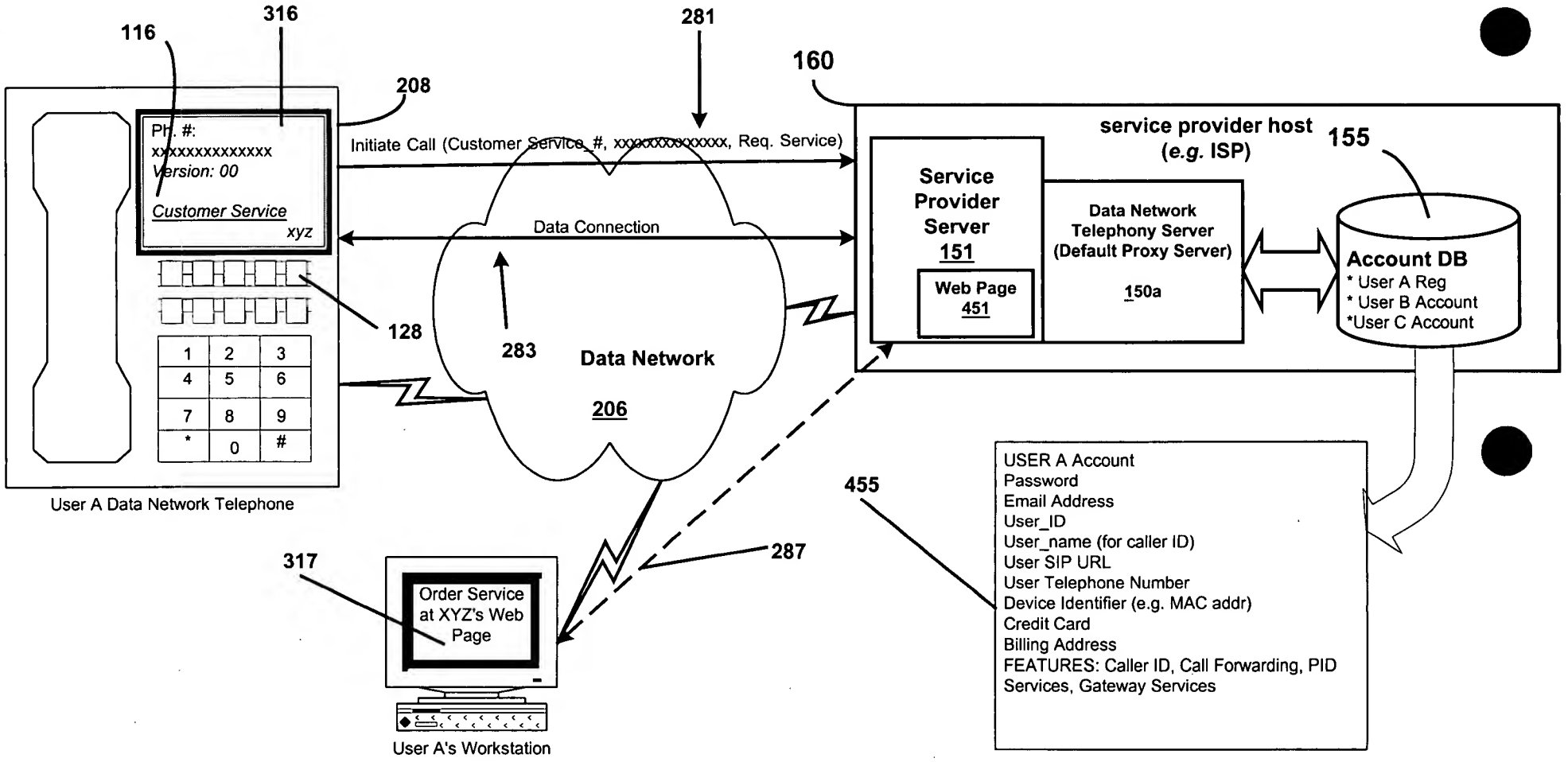

service provider host
(e.g. ISP)
160
155
Service Provider Server
151
Data Network Telephony Server
(Default Proxy Server)
150a
Account DB
* User A Reg
* User B Account
*User C Account
Data Network
206
316
208
116
128
Ph. #: xxxxxxxxxxxxx
Version: 00
Customer Service
xyz
1 2 3
4 5 6
7 8 9
* 0 #
User A Data Network Telephone

FIG. 4A


116
316
281
160
208
Ph. #:
xxxxxxxxxxxxx
Version: 00
Customer Service
xyz
Initiate Call (Customer Service_#, xxxxxxxxxxxxx, Req. Service)
Data Connection
service provider host
(e.g. ISP)
155
Service Provider Server
151
Web Page
451
Data Network Telephony Server (Default Proxy Server)
150a
Account DB
* User A Reg
* User B Account
*User C Account
128
283
Data Network
206
1 2 3
4 5 6
7 8 9
* 0 #
User A Data Network Telephone
455
USER A Account
Password
Email Address
User_ID
User_name (for caller ID)
User SIP URL
User Telephone Number
Device Identifier (e.g. MAC addr)
Credit Card
Billing Address
FEATURES: Caller ID, Call Forwarding, PID Services, Gateway Services
317
287
Order Service at XYZ's Web Page
User A's Workstation

OBJECT "C2B3260

FIG. 4B

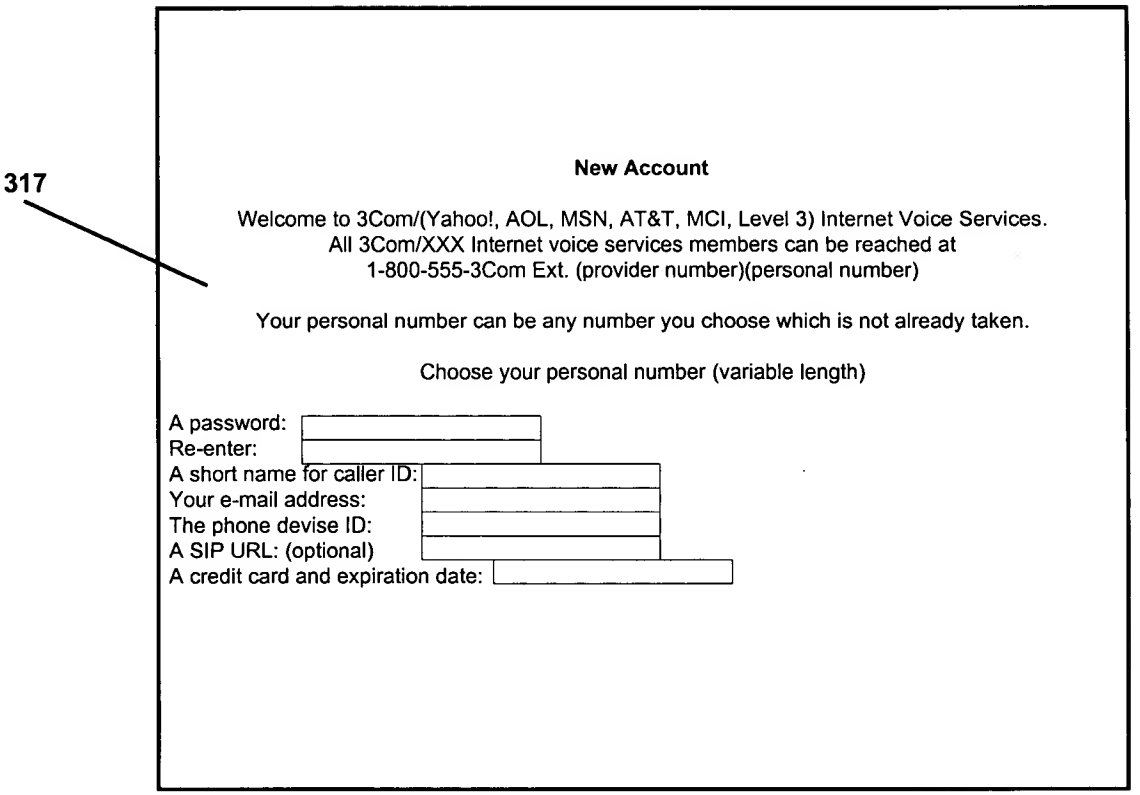
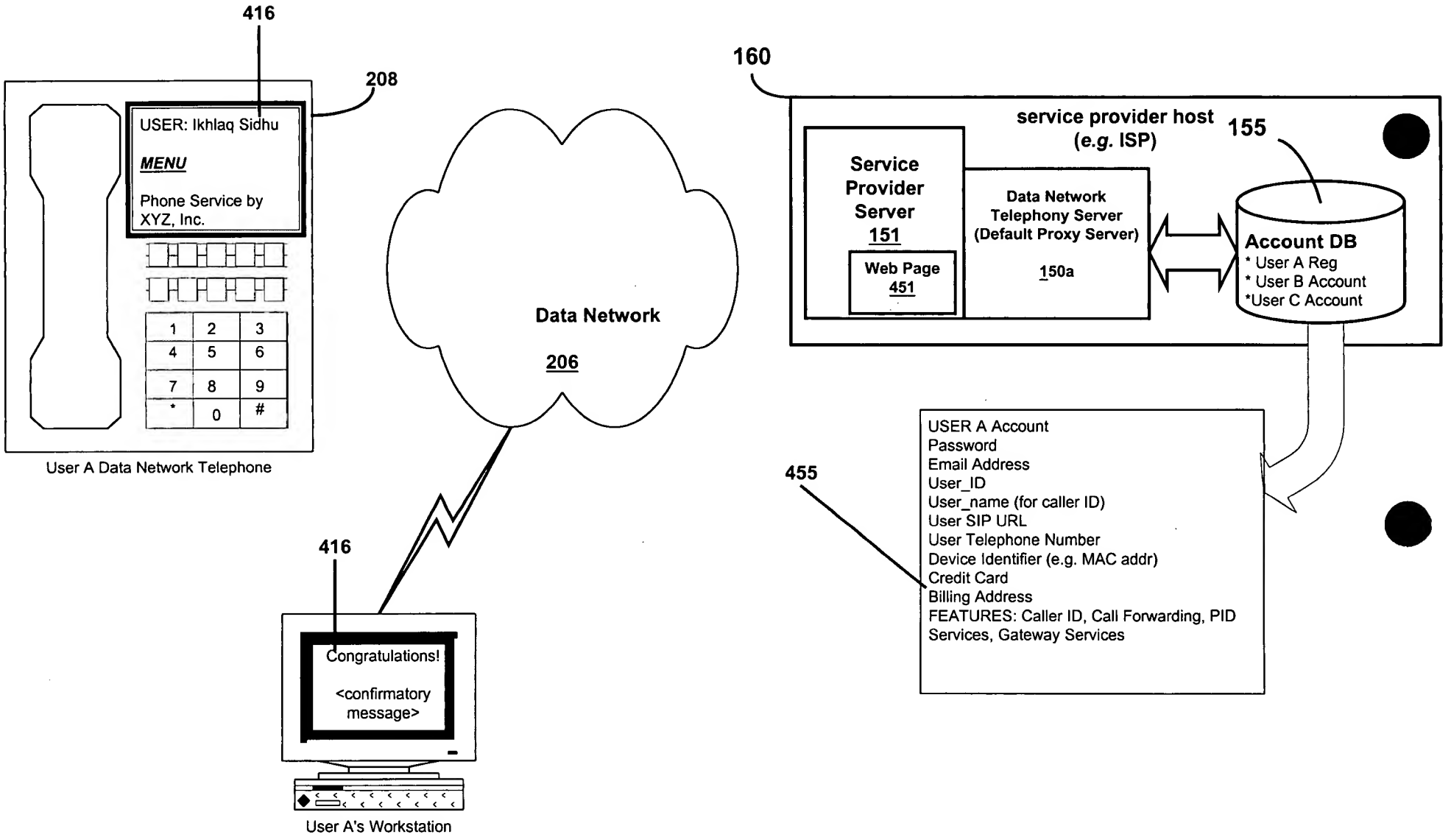


FIG. 4C


416
208
USER: Ikhlaq Sidhu
MENU
Phone Service by XYZ, Inc.
1 2 3
4 5 6
7 8 9
* 0 #
User A Data Network Telephone
Data Network
206
160
service provider host
(e.g. ISP)
155
Service Provider Server
151
Web Page
451
Data Network Telephony Server
(Default Proxy Server)
150a
Account DB
* User A Reg
* User B Account
*User C Account
455
USER A Account
Password
Email Address
User_ID
User_name (for caller ID)
User SIP URL
User Telephone Number
Device Identifier (e.g. MAC addr)
Credit Card
Billing Address
FEATURES: Caller ID, Call Forwarding, PID Services, Gateway Services
416
Congratulations!
<confirmatory message>
User A's Workstation

Congratulations!

An E-mail has been sent to you. You must reply to that e-mail to activate this account. You should print this page and keep it for future reference.

417

+ Your new "personal" phone number is 1-800-5553Com Ext. 200 634-0610
+ Your SIP address (for Palm PDA based dialing) is ikhlaq_sidhu.3com.com@xxx.com

Some Frequently asked questions:
Q: How do I dial another 3Com / XXX Internet phone user?
A: You only need to dial the extension number. For example other 3Com/(...) users with the same provider code (200) can call you at 634-0610. To call a user with another (say 202) provider number, you must dial 1-202-634-0610.

Q: How do I dial traditional people phones?
A: Dial 9 to get out of the system. I.e. dial 9, 1800-CALL ATT to use a AT&T calling card.

Q: How are calls billed?
A: There is no extra charge for calls to other 3Com/XXX subscribers.
There is no extra charge to make domestic long distance calls over the Public Telephone Net. International calls over the public network are billed to your credit card on a per call basis.

Q: How do I set speed dials and other advanced features?
A: Goto www.3comvoice.com/ikhlaq_sidhu.3com.com@xyz.com and enter your password ZZZ.

Q: How do I use speed dialing from my Palm PDA?
A: The proxy server option must be set to proxy@xxx.com. Any subscriber with an e-mail address can be auto dialed by. . .

FIG. 4D

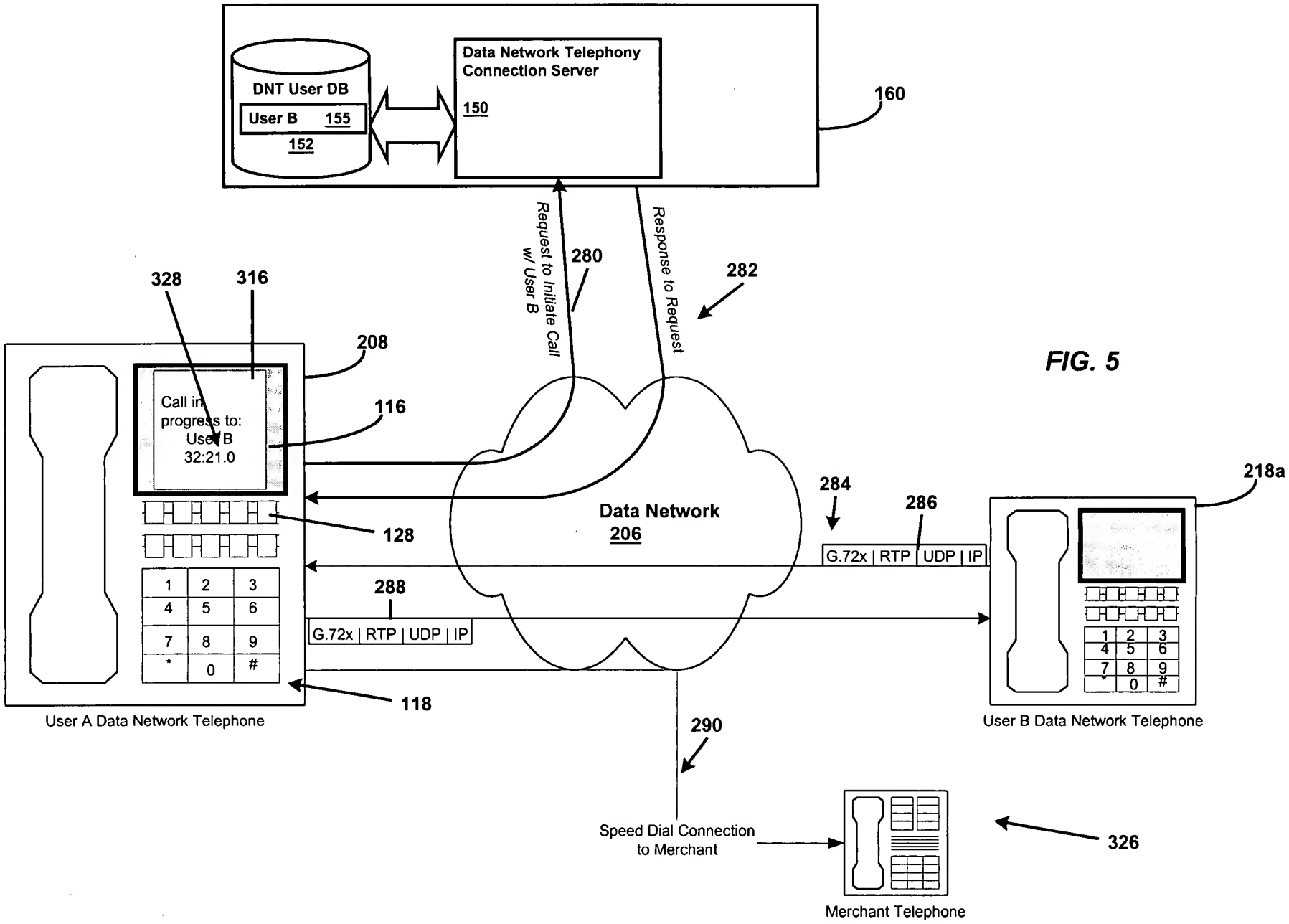

Data Network Telephony Connection Server
150
160
DNT User DB
User B 155
152
Request to Initiate Call w/ User B
280
Response to Request
282
328
316
208
116
Call in progress to: User B 32:21.0
128
1 2 3
4 5 6
7 8 9
* 0 #
User A Data Network Telephone
118
Data Network
206
284
286
G.72x | RTP | UDP | IP
288
G.72x | RTP | UDP | IP
218a
User B Data Network Telephone
290
Speed Dial Connection to Merchant
Merchant Telephone
326

FIG. 5

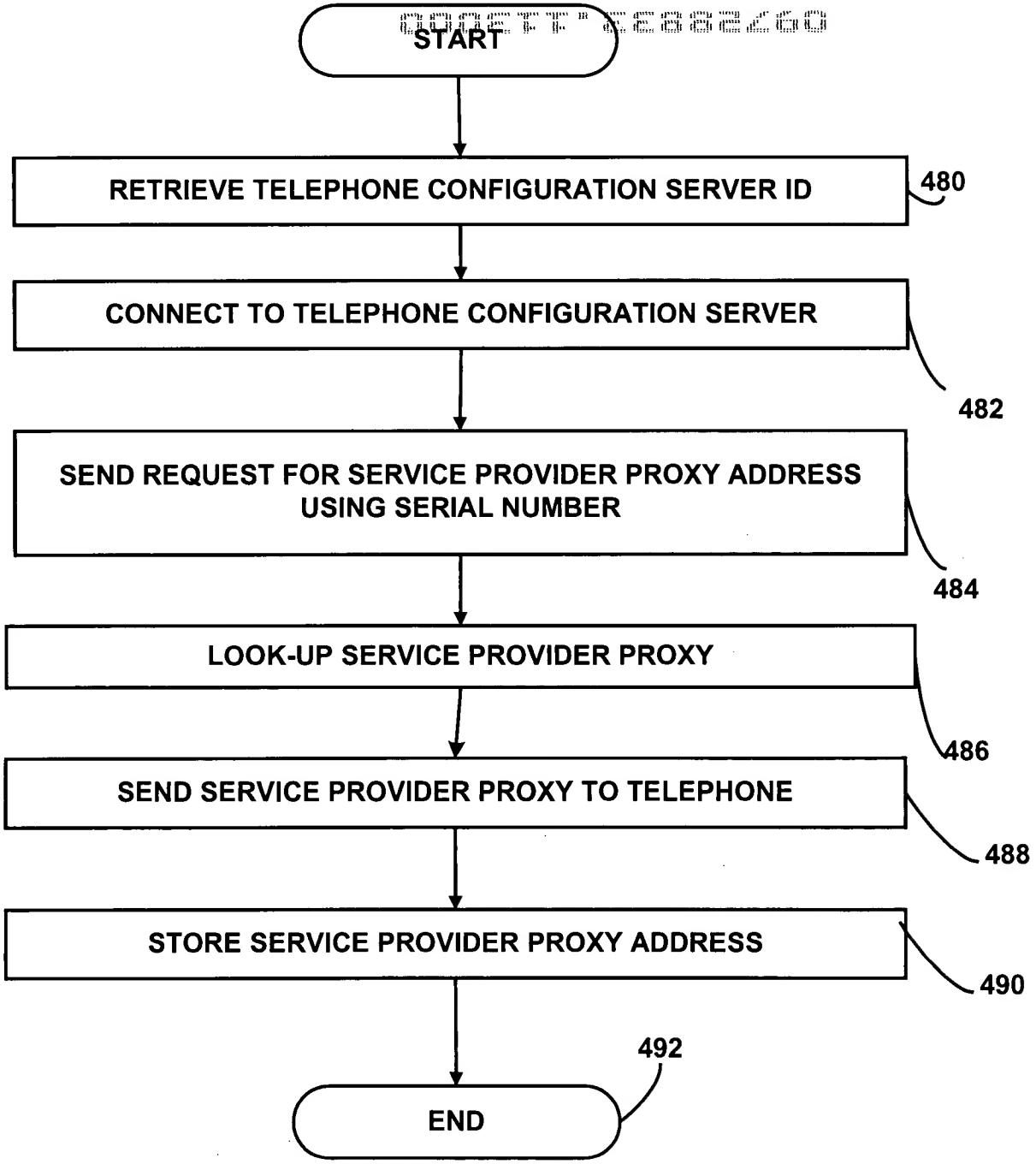

START
RETRIEVE TELEPHONE CONFIGURATION SERVER ID
480
CONNECT TO TELEPHONE CONFIGURATION SERVER
482
SEND REQUEST FOR SERVICE PROVIDER PROXY ADDRESS USING SERIAL NUMBER
484
LOOK-UP SERVICE PROVIDER PROXY
486
SEND SERVICE PROVIDER PROXY TO TELEPHONE
488
STORE SERVICE PROVIDER PROXY ADDRESS
490
492
END

FIG. 6A

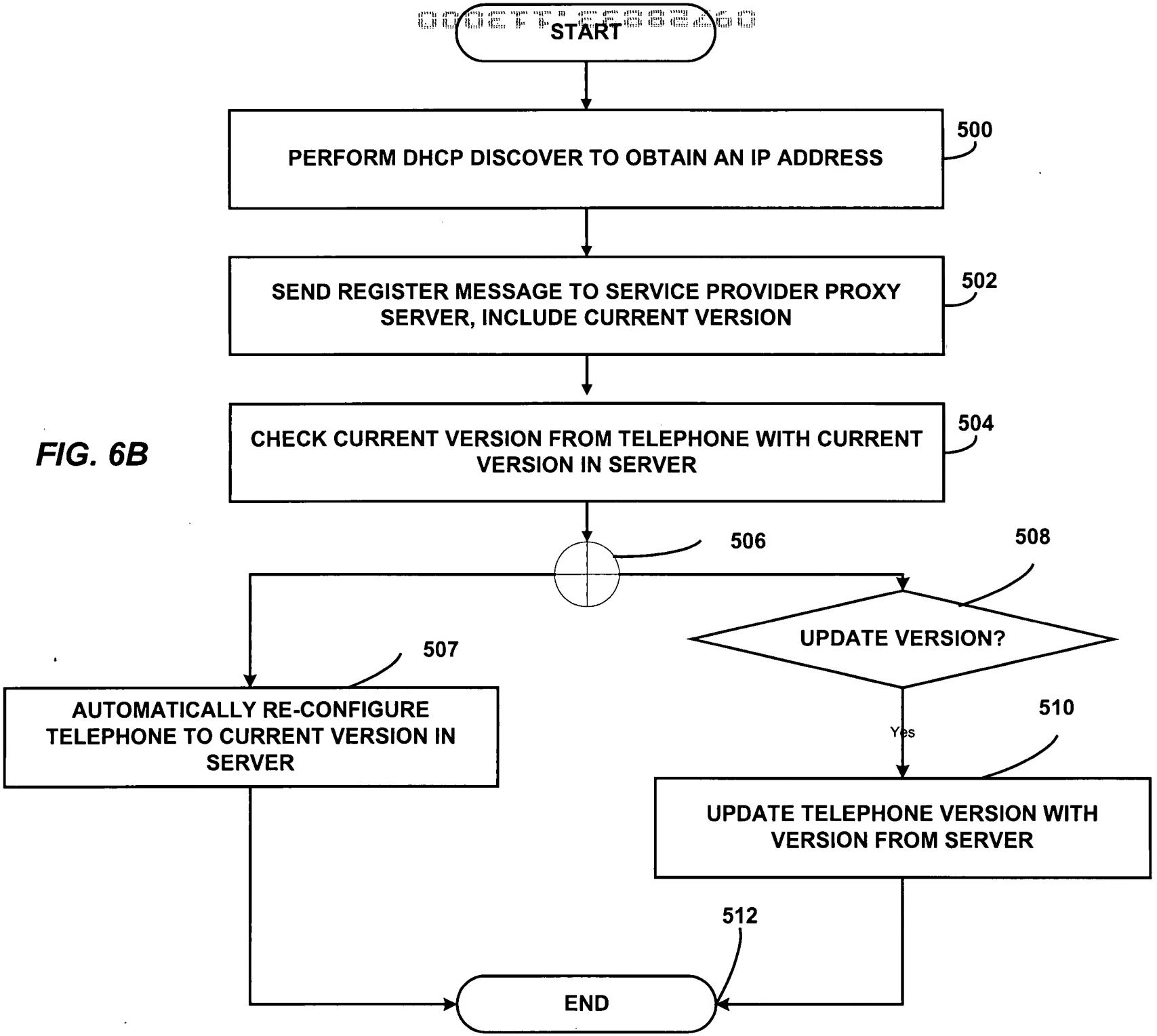

START
PERFORM DHCP DISCOVER TO OBTAIN AN IP ADDRESS
500
SEND REGISTER MESSAGE TO SERVICE PROVIDER PROXY SERVER, INCLUDE CURRENT VERSION
502
CHECK CURRENT VERSION FROM TELEPHONE WITH CURRENT VERSION IN SERVER
504
506
508
UPDATE VERSION?
507
AUTOMATICALLY RE-CONFIGURE TELEPHONE TO CURRENT VERSION IN SERVER
Yes
510
UPDATE TELEPHONE VERSION WITH VERSION FROM SERVER
512
END

FIG. 6B

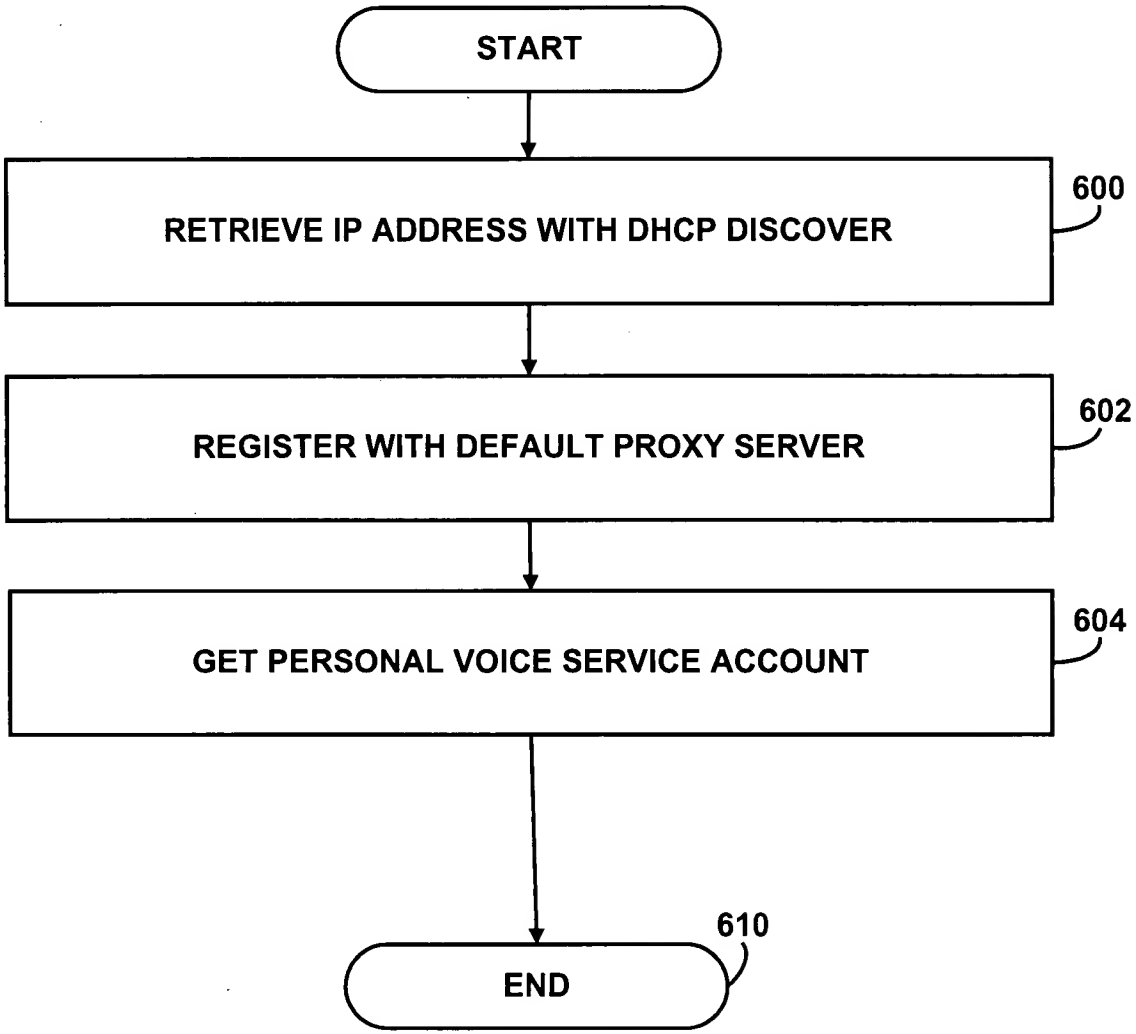

START
RETRIEVE IP ADDRESS WITH DHCP DISCOVER
600
REGISTER WITH DEFAULT PROXY SERVER
602
GET PERSONAL VOICE SERVICE ACCOUNT
604
END
610

FIG. 7

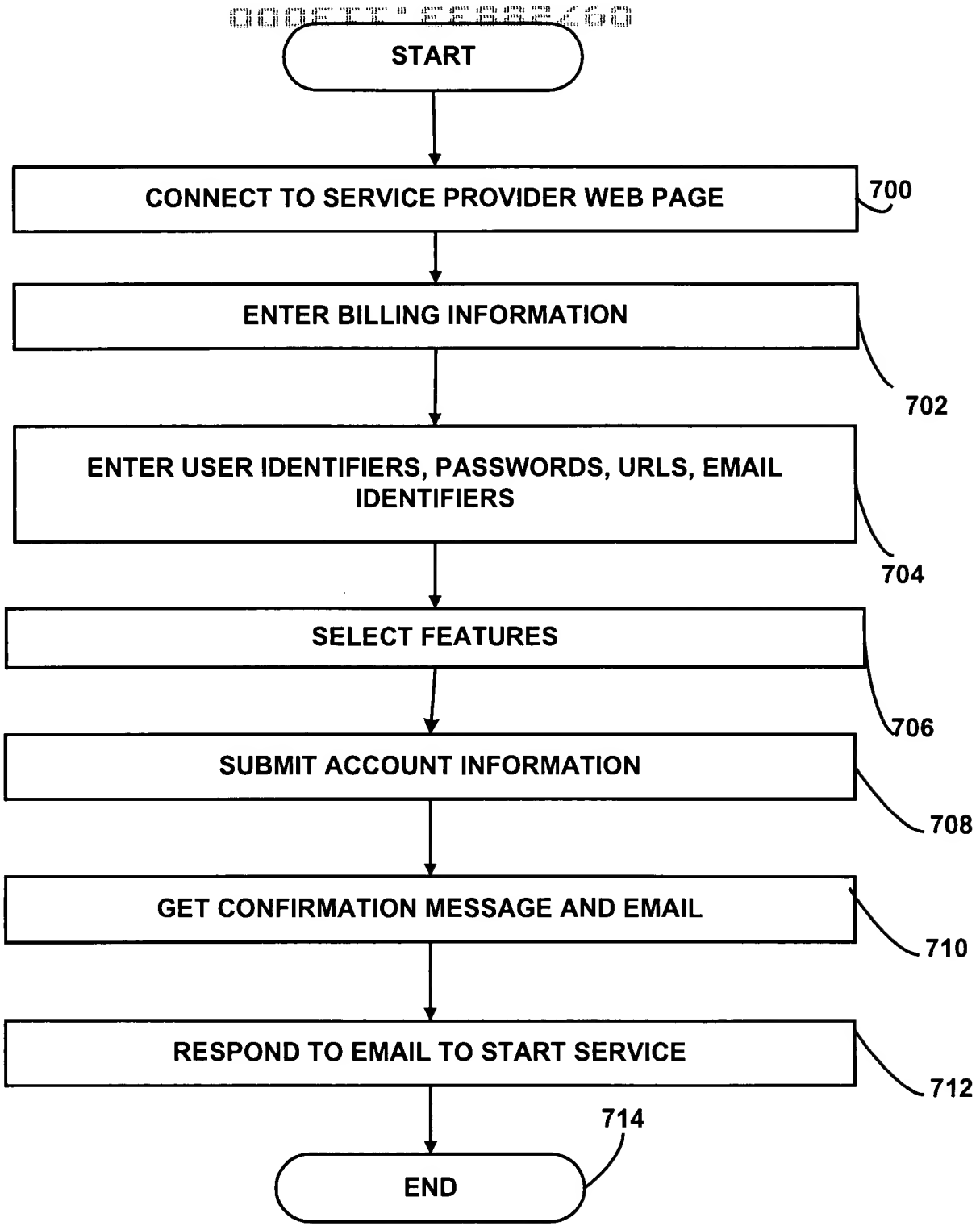

START
CONNECT TO SERVICE PROVIDER WEB PAGE
700
ENTER BILLING INFORMATION
702
ENTER USER IDENTIFIERS, PASSWORDS, URLS, EMAIL IDENTIFIERS
704
SELECT FEATURES
706
SUBMIT ACCOUNT INFORMATION
708
GET CONFIRMATION MESSAGE AND EMAIL
710
RESPOND TO EMAIL TO START SERVICE
712
714
END

FIG. 8